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SERVICE MANUAL
732
UNIT

Release Bulletin PCR Compano Reader

Software Version A06

4512 201 01661

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SERVICE MANUAL - UNIT

Release Bulletin PCR Compano Reader
Software Version A06
4512 201 01661

Author: B. Freytag

In case there are any questions concerning this manual,
please, send this LOPAD via fax to +49/(0)40/5078 2481

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1. Release Information

1.1. Supplied Software

PCR Compano Reader SW A06 4512 201 01661

Consisting of:

- 1 CD 'CR-IR346RU Application Software' A06 .....4512 116 04301 (114Y5436002)
- this Release Bulletin 4512 984 24591

If there is a Philips edition of the CD in the scope of delivery, please use this.
It contains revised text, especially in the German language.

Further documentation:

- Service Manual PCR Compano Reader (on CD-ROM) 4512 984 24571
- System Manual Installation PCR Compano 4512 984 24611
- System Manual Installation PCR Compano S.....4512 984 25401

The application software of the Compano Reader is delivered on a CD ROM and has to be loaded onto the Compano PC. The Compano PC is either the PCR Preview Unit or the PCR Console depending on the type of the Compano system.

The reader itself contains only an FTP program and a configuration file stored in the Flash PROMs of the CPU board. After power-on, the reader establishes a network connection to the Host PC and loads from there application software and specific scanner data. Please refer also to chapter 2 "**Relation between Reader and Compano PC**"

The **machine data** diskette contains a backup of the intial specific scanner data and is marked with the s/n of the reader. If there is the need this scanner data can be loaded via the Maintenance Utility, running on the Host PC, into the reader.

1.2. What's new?

First edition.

1.3. Compatibility

PCR Preview Unit	Rel. 1.1 →
Console Compano S	Rel. 1.1 →

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2. Relation between Reader and Compano PC

Explained below is the Compano PC/ Reader data exchange operation to be performed when these two system components are connected with each other.

NOTE:
The data referred to herein is for both the application used to operate the Reader (Reader-AP hereinafter) and the Reader's configuration file (Reader-Config hereinafter).

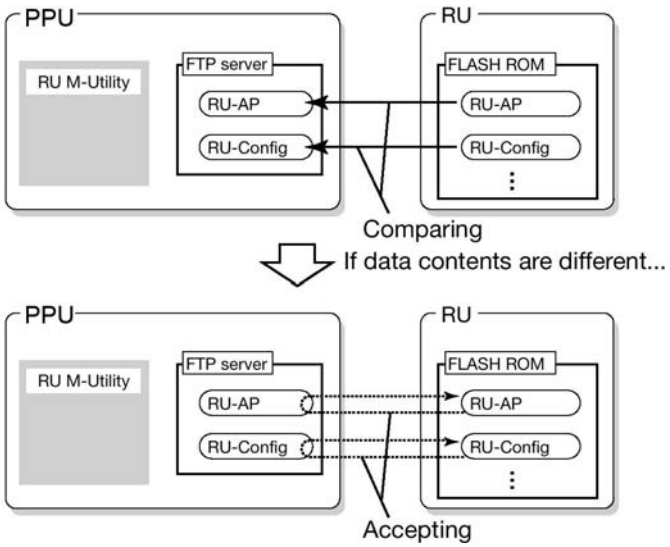
The external interface that updates Reader's internal data, such as the Reader-AP or Reader-Config, is not provided in the Reader main unit. Thus, the Compano PC (OS: Windows 2000) is used for this purpose.

Basically, the Compano PC is used to control the Reader.

Because the FTP server function is used for updating Reader's internal data, the FTP server needs to be configured in the Compano PC.

Furthermore, to enable the Reader to be operated, the Reader-AP and Reader-Config must be stored in the Reader's FLASH ROM and, at the same time, the Reader-AP and Reader-Config of the same contents as that in the FLASH ROM must be stored in the FTP server as well. However, if the Reader-AP and Reader-Config data stored in the FTP server differs from that in the FLASH ROM, the Reader accepts the FTP server data updating thus the FLASH ROM data.

The Reader's internal data is then updated using this feature.



The example operation flow for upgrading the Reader-AP software version from A00 to A01 is as follows:

1. Use the Reader M-Utility function to install the A01 Reader-AP in the Compano PC's FTP server.
2. Restart the Compano PC or the Reader.
While in restart process, the FTP server and FLASH ROM data are compared with each other.
When the contents of the A00 and A01 versions are verified to be different from each other, the Reader accepts the A01 Reader-AP from the FTP server and updates the FLASH ROM A00 data with the A01 data.

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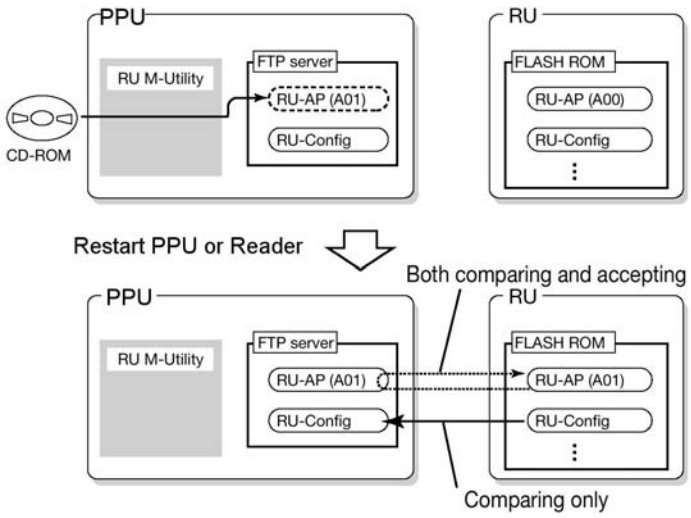

The Reader M-Utility mentioned in step 1 above is the Reader's dedicated utility tool that is responsible for Reader-AP installation or Reader-Config settings.
The Reader M-Utility tool must be installed ahead of time as it is required for installing the Reader -AP or setting the Reader-Config.

The Reader M-Utility tool is stored on the CD delivered with the Reader.

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3. Initial Software Installation and Setup

Before you begin:
The default factory set IP address for the Reader is 172.16.1.10. This IP address is initially used for setting up the Reader from the Compano PC via the network. If the Reader is hooked up to a hospital network, it can be possible that the network administrator doesn't allow you to connect the Reader using the default IP address. In that case you should either use a separate network hub or set up the Reader via the serial port (see chapter **MUTL via the Serial Port**).
Use the Philips edition of the software (revised text) if in the scope of delivery.

Make sure that Compano PC and Reader are connected to the network and are both switched on.

1. Insert the CD 'CR-IR346RU Application Software' into the CD-ROM drive of the Compano PC. Within a few seconds the **Maintenance Tools** is started.

2. Click [**Install**]:

3. Click [**Next**] .

The **FCR TOOL Setup/Ready to Install...** window opens.

4. Click [**Install**]**:**

When the installation has been completed, the **FCR TOOL Setup/Completing the...** window opens.

5. Click [**Finish**].

The system returns to the **CR-IR 346RU MAINTENANCE TOOLS** window.

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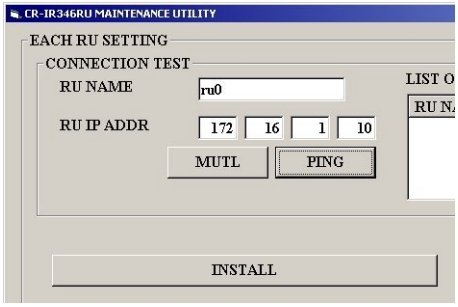
6. Click [**Start**] to start the **CR-IR 346RU MAINTENANCE UTILITY**.

7. The default address for the Reader is already entered. This address is used to initially communicate with the Reader even if the address will be changed later on.

   If you have already entered the network configuration of the Reader via serial port, enter the data accordingly.

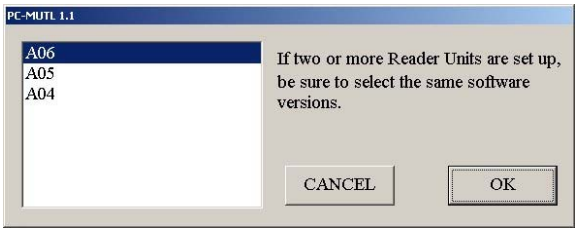
   To check the communication click [**PING**].



8. Click [**Install**].

9. When asked for, make sure the CD is inserted and click [**OK**].

10. Make sure the most recent software has been selected and click [**OK**]:



11. Now enter the configuration data:

RU IP ADDR	IP address of the Reader
CL IP ADDR	IP address of the Compano PC
FTP-SERV IP ADDR	IP address of the Compano PC
NET MASK	Net mask
ROUTER IP ADDR	IP address of the default gateway or router
EQUIPMENT CODE	Reader unique ID, set always to "A"
RANGE OF ERASE MODE	Specifies the erasure mode range. ERASE 1: Primary erasure can be selected. ERASE 1, ERASE 2: Both primary and secondary erasures can be selected.
IP ERASE TYPE	Setup needed if no barcode reader is installed. 5, 6 :Types V and VI mixed. 6 : Type VI
ALARM (CASSETTE SET)	Sets alarm ON/OFF when cassette is inserted. ON : Alarm sounds. OFF : Alarm does not sound
ALARM (MODE SWITCH)	Sets alarm ON/OFF when erasure processing is selected. ON : Alarm sounds. OFF : Alarm does not sound.
WARNING OF OVERXRAY	Selects X-ray over-exposure IP warning method. LOG & MESSAGE: Warning by log and message. LOG: Warning by log. NONE: No warning issued .

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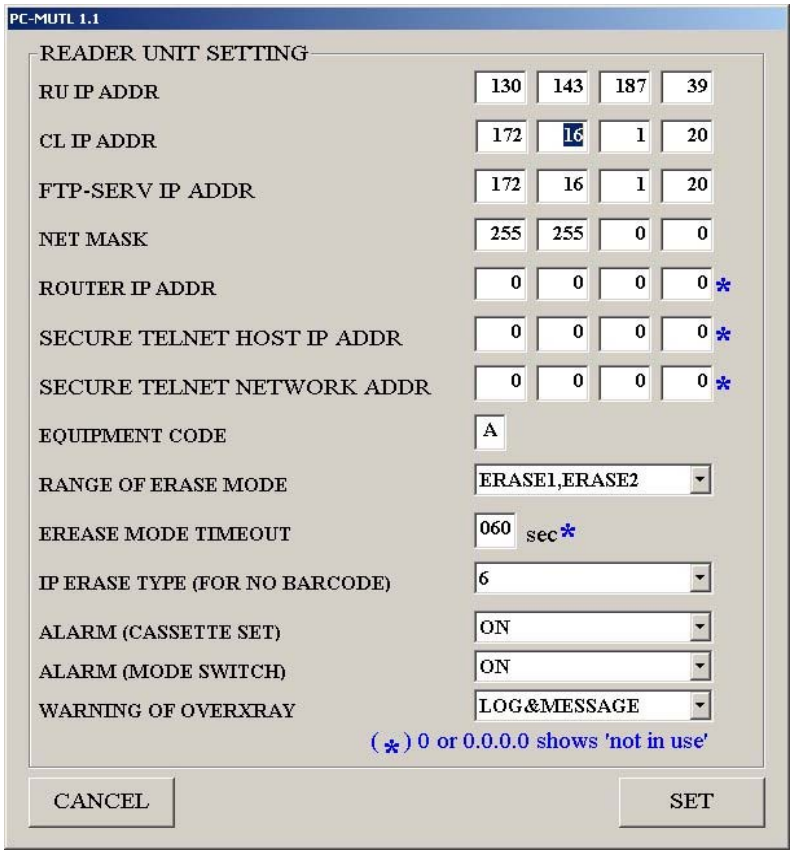

PC-MUTL 1.1
READER UNIT SETTING
RU IP ADDR 130 143 187 39
CL IP ADDR 172 16 1 20
FTP-SERV IP ADDR 172 16 1 20
NET MASK 255 255 0 0
ROUTER IP ADDR 0 0 0 0 *
SECURE TELNET HOST IP ADDR 0 0 0 0 *
SECURE TELNET NETWORK ADDR 0 0 0 0 *
EQUIPMENT CODE A
RANGE OF ERASE MODE ERASE1,ERASE2
EREASE MODE TIMEOUT 060 sec*
IP ERASE TYPE (FOR NO BARCODE) 6
ALARM (CASSETTE SET) ON
ALARM (MODE SWITCH) ON
WARNING OF OVERXRAY LOG&MESSAGE
(*) 0 or 0.0.0.0 shows 'not in use'
CANCEL
SET

Click [**SET**] to store the configuration data onto hard disk.

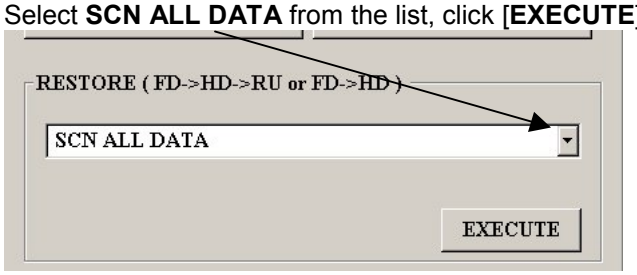
12. A command prompt window opens and the configuration data are sent to the Reader. You should see messages passing by in the window.

    If you do not see these messages you do not have a network connection to the Reader: Do not panic. The Reader will update its configuration once the network connection has been established.

13. When the **Completed** message is displayed, click [**OK**].

14. Insert the floppy disk **Machine Shipment Data** that came with the Reader into the floppy drive.

15. Select **SCN ALL DATA** from the list, click [**EXECUTE**] , then [**OK**].



16. A command prompt window opens and the scanner specific data are sent to the Reader.
    Wait until transfer has been finished and the window has been closed.

17. When the **Completed** message is displayed, click [**OK**].

18. Click [**X**] to close the **Maintenance utility** window.

19. Click [**EXIT**] to close the **Maintenance tool** window.

20. Remove CD and floppy from the drive.

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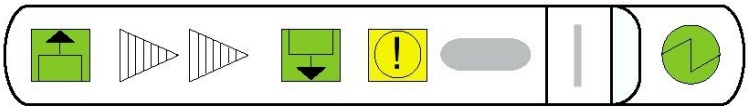
4. Updating software

When the reader detects after its boot process an updated configuration file or application software on the Compano PC, the reader shows the following behavior, explained for a Compano S system.

1. All the LEDs on the RU panel come on and short beeps are generated, indicating that the Reader software and configuration data are being updated.



Caution:
While the RU panel LEDs are illuminated, never turn OFF the Reader because its CPU board may get damaged.

If you have reloaded the software and you are using the same configuration data for the Reader, the LED may not come on.

2. When the button

appears (language dependent) click this button.

   The configuration data in the Reader FLASH ROM is updated.

3. After a while the Reader initialization process begins. The Console application window shows a message to indicate that the Reader is being initialized. Note that this message does not appear if the Reader has been started up before the Console application.

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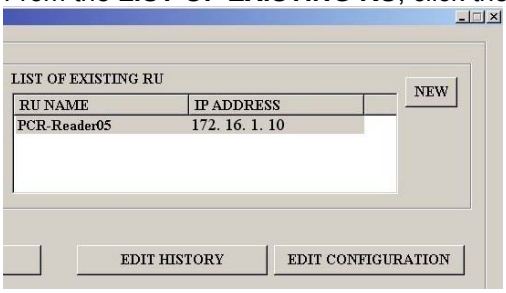
5. Configuration

The meaning of the configuration parameters are described in the service manual of the reader.
See section Maintenance Utility.

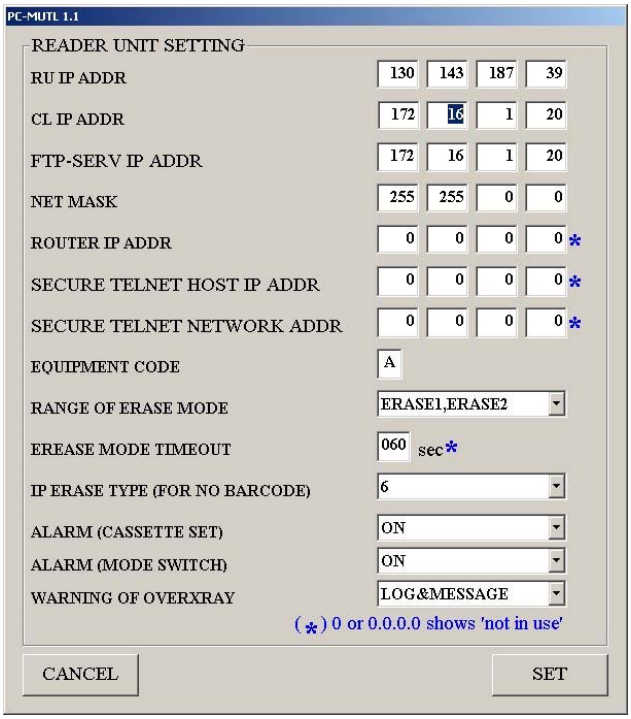
5.1. Changing the Configuration

1. Startup the Maintenance Utility as described in chapter **7.1 Starting the Maintenance Utility**.

2. From the **LIST OF EXISTING RU**, click the Reader which configuration file is to be set.



3. Click [**EDIT CONFIGURATION**]. The **READER UNIT SETTING** window opens:


PC-MUTL 1.1
READER UNIT SETTING
RU IP ADDR 130 143 187 39
CL IP ADDR 172 16 1 20
FTP-SERV IP ADDR 172 16 1 20
NET MASK 255 255 0 0
ROUTER IP ADDR 0 0 0 0 *
SECURE TELNET HOST IP ADDR 0 0 0 0 *
SECURE TELNET NETWORK ADDR 0 0 0 0 *
EQUIPMENT CODE A
RANGE OF ERASE MODE ERASE1,ERASE2
EREASE MODE TIMEOUT 060 sec*
IP ERASE TYPE (FOR NO BARCODE) 6
ALARM (CASSETTE SET) ON
ALARM (MODE SWITCH) ON
WARNING OF OVERXRAY LOG&MESSAGE
(*) 0 or 0.0.0.0 shows 'not in use'
CANCEL
SET

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RU IP ADDR	IP address of the Reader
CL IP ADDR	IP address of the Compano PC
FTP-SERV ADDR	IP address of the Compano PC
NET MASK	Net mask
ROUTE	IP address of the default gateway or router
EQUIPMENT CODE	Reader unique ID, used for other configurations: set to "A"
RANGE OF ERASE MODE	Specifies the erasure mode range. ERASE 1: Primary erasure can be selected. ERASE 1, ERASE 2: Both primary and secondary erasures can be selected.
IP ERASE TYPE	Setup needed if no barcode reader is installed. 5, 6 :Types V and VI mixed. 6 : Type VI
ALARM (CASSETTE SET)	Sets alarm ON/OFF when cassette is inserted. ON : Alarm sounds. OFF : Alarm does not sound
ALARM (MODE SWITCH)	Sets alarm ON/OFF when erasure processing is selected. ON : Alarm sounds. OFF : Alarm does not sound.
WARNING OF OVERXRAY	Selects X-ray over-exposure IP warning method. LOG & MESSAGE: Warning by log and message. LOG: Warning by log. NONE: No warning issued .

4. Change the data as needed.

5. When done click [**SET**]. The configuration is saved to hard disk and the system returns to the main menu.

6. Click [**X**]. The system returns to the desktop screen.

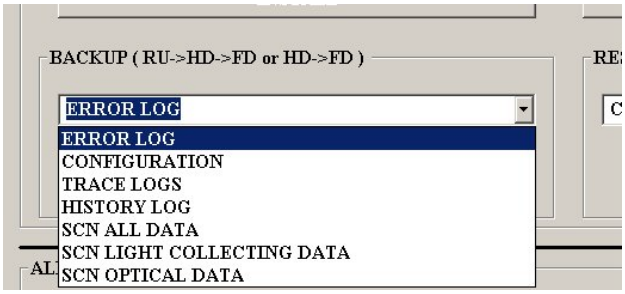
7. Now restart the Reader and startup the application.

5.2. Backup and Restore

Startup the Maintenance Utility. Have on hand a formatted diskette or the diskette containing the backup data.

5.2.1. Backup

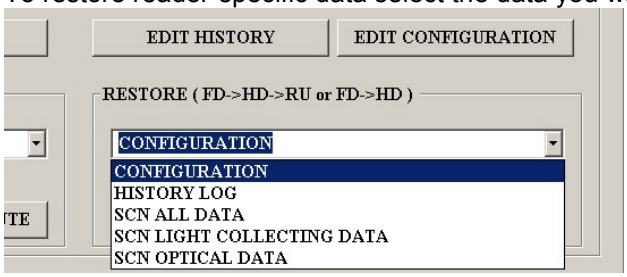
1. To back up reader-specific data select the data you want to save from the list:



2. Click [**EXECUTE**] and follow the instruction given.

5.2.2. Restore

1. To restore reader-specific data select the data you want to restore from the list:



2. Click [**EXECUTE**] and follow the instruction given.

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6. Servicing the Reader

Prerequisites:
- Null Modem cable (delivered with the system) when using the serial interface

All service functions of the reader are managed by the program **Maintenance Utility** running on the Compano PC. A subpart is the program **MUTL** which is stored on the CPU board of the reader.
MUTL can be reached either via network or the serial interface.
If selected via the Maintenance Utility a login with ***cr-ir346*** as login name and password is required.

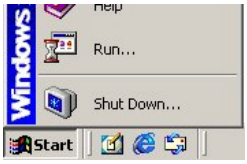
6.1. Starting the Maintenance Utility

1. Exit the application of the Console Compano S or the Preview Unit by pressing the <Shift> button and clicking on the Philips and/or Exit field. The Windows 2000 desktop appears.

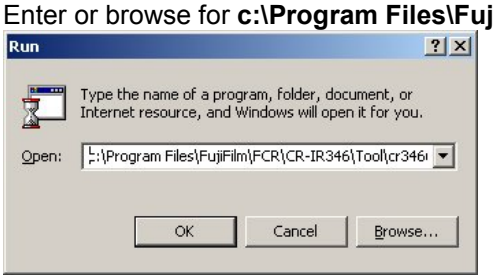
2. Start the Maintenance Utility program by doing the following:

   Click

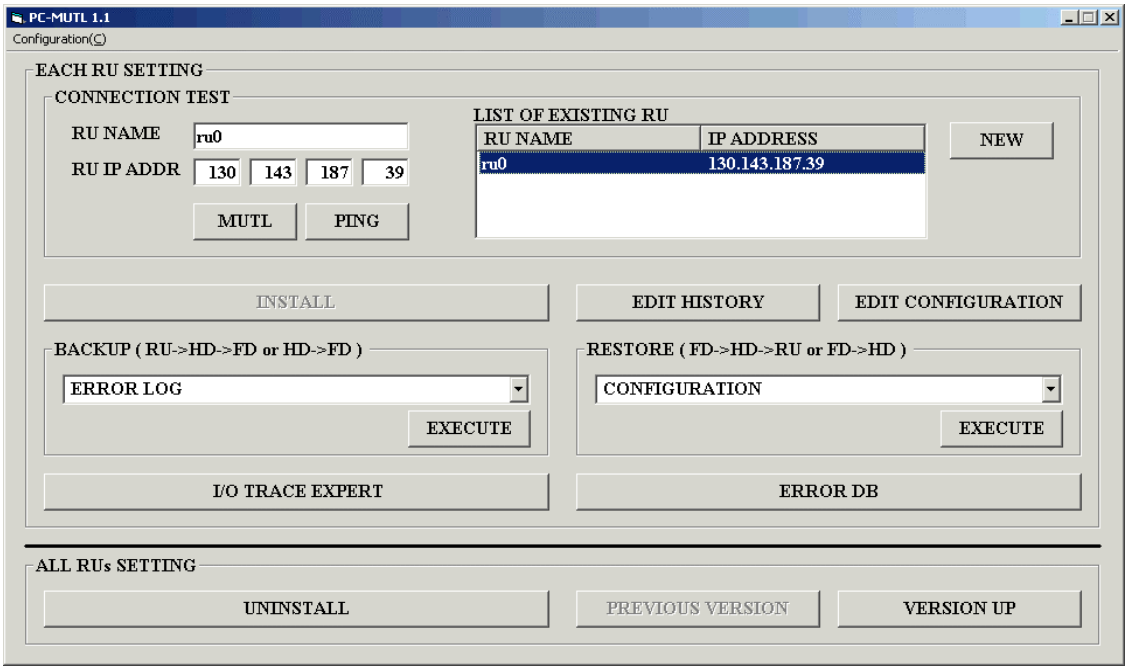
   Click **Run...**



   Enter or browse for **c:\Program Files\FujiFilm\FCR\Tool\cr346uty.exe** and click [**OK**].



3. Select the reader unit in the **LIST OF EXISTING RU**. Now all service fuctions are selectable.



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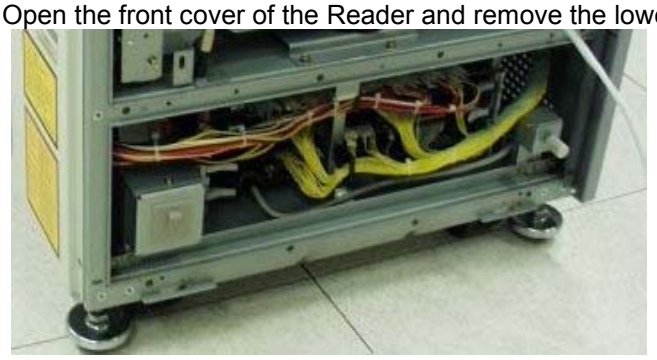
6.2. MUTL via the Network

1. Start the Maintenance Utility at the Compano PC.
2. Select the reader unit and MUTL.
3. Login with ***cr-ir346*** as login name and password. The prompt **'->'** appears.
4. Enter ***mutl*** and press <Enter>, the service menu of the reader is displayed.

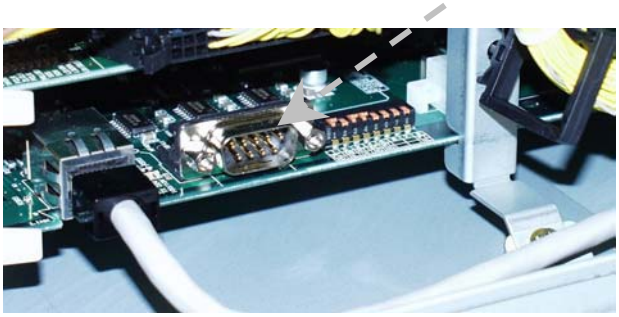
For further explanations please refer to the Service Manual of the Compano Reader.

6.3. MUTL via the Serial Port

1. Open the front cover of the Reader and remove the lower light protection cover.



2. Connect Null Modem cable to the serial port on the CPU board of the Reader.



3. Connect Null Modem cable to a serial port of the PC.
4. On the PC start up a terminal program (e.g. Start > Accessories > Hyperterminal > Hyperterminal).
5. Set protocol parameter to 9600,8,N,1.
6. Start up the Reader. The terminal program should now display Reader's start-up messages.
7. Wait for at least 20 seconds, then press <**Enter**>.
   The prompt ***'->'*** of the Operating System should now be displayed.
8. Enter ***mutl*** and press <**Enter**>, the service menu of the reader is displayed.

For further explanations please refer to the Service Manual of the Compano Reader.

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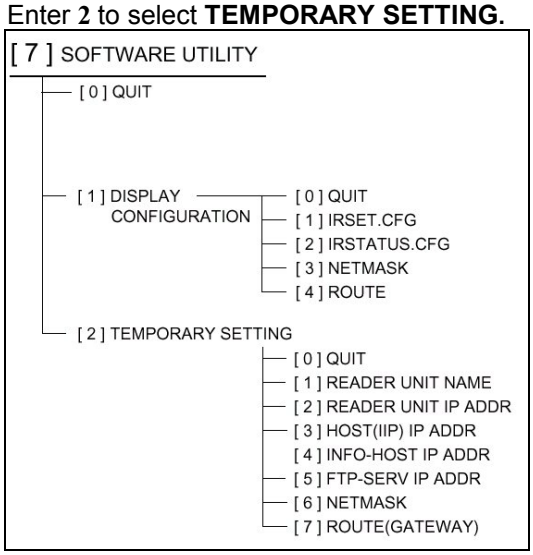
6.4. Changing the Network Configuration

1. Start **MUTL** either via the network or the serial interface.

2. Enter **7** to select **SOFTWARE UTILITY**.

3. Enter **2** to select **TEMPORARY SETTING.**


[7] SOFTWARE UTILITY
[0] QUIT
[1] DISPLAY CONFIGURATION
[0] QUIT
[1] IRSET.CFG
[2] IRSTATUS.CFG
[3] NETMASK
[4] ROUTE
[2] TEMPORARY SETTING
[0] QUIT
[1] READER UNIT NAME
[2] READER UNIT IP ADDR
[3] HOST(IIP) IP ADDR
[4] INFO-HOST IP ADDR
[5] FTP-SERV IP ADDR
[6] NETMASK
[7] ROUTE(GATEWAY)

Now enter in sequence

[1] READER UNIT NAME	IP name of the Reader
[2] READER UNIT IP ADDR	IP address of the Reader
[3] HOST(IIP) IP ADDR	IP address of the Compano PC
[4] INFO-HOST IP ADDR	IP address of the Compano PC
[5] FTP-SERV IP ADDR	IP address of the Compano PC
[6] NETMASK	Net mask
[7] ROUTE(GATEWAY)	IP address of the Router / Gateway

4. When done, press <0> <Enter> and again <0> <Enter>.

5. A changed IP name must also be changed at the readers ftp server. There the configuration file IRSET.CFG and the IP name in the path have to be adapted.
   C:\Programm Files\ FujiFilm\ FCR\ CR-IR346\ SYSTEM\ ..(IP name)..\ CONFIG\ IRSET.CFG
   For details see Release Bulletin of the PCR Preview Unit or Console Compano S.

6. Restart the Reader.

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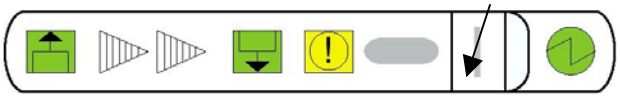
6.5. Resetting the Reader to Factory Defaults

To clear the Reader's Backup memory (FLASHROM) and to set the Reader IP address to "172.16.1.10", perform the following steps:

1. While holding down the Reader's <**Erasure Process**> switch turn ON the power switch.



2. Verify that the primary erasure indicator LED on the Reader panel comes on. (At this stage, you still have to hold down the <Erasure Process> switch.) If the LED remains extinguished, repeat step 1.

3. Release the <**Erasure Process**> switch.
   The Reader is now set to defaults.

6.6. CPU board defective?

It could happen that the CPU board is not able to execute the MUTL program anymore.
In cases where the prompt '->' still appears it is possible to repair the CPU board by reloading the application SW.
Only under this condition the following procedure can be used.

Please use this procedure carefully otherwise the CPU board can be destroyed irreversibly.

For further information please refer to the service manual of the reader, chapter **Action to be Taken When the RU Application Software is Damaged.**

1. Establish either a network or serial connection to the reader.
   The prompt **'->'** appears.

2. Enter ***softupdate*** and press **<Enter>.**

3. After the message ***Write OK*** appeared (approx. 2 min.) reboot the reader.

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7. Remote Service

Telnet session:

- Start a Telnet connection on the remote PC to the IP address of the Reader.
  The Reader replies with: ***RU[reader name] login:***
- Enter the login name : ***cr-ir346***
- Enter the password : ***cr-ir346***

  The operating system of the Reader prompts with: ***->***
- To start the maintenance utility enter: ***mutl***

MAINTENANCE UTILITY FOR CR-IR346.

Escape INPUT/AUTO mode: [CTRL+C] [ENTER]

0. QUIT
1. LOG
2. VERSION
3. TEST
4. ELECTRICAL UTILITY
5. SCANNER UTILITY
6. MECHANICAL UTILITY
7. SOFTWARE UTILITY
8. BACKUP MEMORY
9. HV OFF

FTP session:

- Start the FTP program on the remote PC with the following configuration:
  IP address of the Host PC !
  User name (default): ***cr-ir346***
  Password (default): ***cr-ir346***
  Type: ***Binary***
  Target directory: ***system/<reader name>***
- Copy the configuration files to or from your remotely connected PC.
  Path: /***system/<reader name>/config***/
  irset.cfg = system configuration
  irstatus.cfg = internal configuration, do not change!
  netmasks = netmasks
  route = routing
- Copy the error logging and trace data files saved before on the Host PC via the Telnet session, to the remotely connected PC.
  path /***system/<reader name>/log/***:
  errorx.log = errors, system does not work
  error0.log = messages and warnings
  and all other files of this directory for third level service
- Close the FTP program on the remote PC.

Do not change anything in files which either contain the note "Do not edit this file" or which have the file name extension ORG!

These kind of files are default files and can be copied if something went wrong during a configuration.

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